

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

- 1 1 (currently amended): A method for identifying a compound that modulates T
2 lymphocyte activation, the method comprising the steps of:
3 (i) contacting the compound with a recombinant TRAC1 polypeptide, wherein the
4 polypeptide comprises an amino acid sequence having at least about 90% identity to the amino
5 acid sequence of SEQ ID NO:1, wherein the TRAC1 polypeptide has ubiquitin ligase activity;
6 and
7 (ii) determining the functional effect of the compound upon TRAC1 polypeptide
8 activity.
- 1 2 (original): The method of claim 1, wherein the functional effect is measured *in*
2 *vitro*.
- 3-5 (cancelled)
- 1 6 (currently amended): The method of claim 1, wherein the polypeptide is
2 ~~heterologous and~~ expressed in a host cell.
- 7-8 (cancelled)
- 1 9 (original): The method of claim 6, wherein the host cell is primary T
2 lymphocyte.
- 1 10 (original): The method of claim 6, wherein the host cell is a cultured T cell.
- 1 11 (original): The method of claim 10, wherein the host cell is a Jurkat cell.

1 12 (previously presented): The method of claim 1, wherein the functional effect
2 is determined by measuring CD69 expression, intracellular Ca²⁺ mobilization, Ca²⁺ influx,
3 ligase activity, or lymphocyte proliferation.

1 13 (original): The method of claim 1, wherein modulation is inhibition of T
2 lymphocyte activation.

1 14 (original): The method of claim 1, wherein the polypeptide is recombinant.

1 15 (original): The method of claim 1, wherein the TRAC1 polypeptide
2 comprises an amino acid sequence of SEQ ID NO:1

1 16 (original): The method of claim 1, wherein the TRAC1 polypeptide is
2 encoded by a nucleic acid comprising a nucleotide sequence of SEQ ID NO:2.

1 17 (withdrawn): The method of claim 1, wherein the compound is an antibody.

1 18 (withdrawn): The method of claim 1, wherein the compound is an antisense
2 molecule.

1 19 (original): The method of claim 1, wherein the compound is a small organic
2 molecule.

1 20 (withdrawn): The method of claim 1, wherein the compound is a peptide.

1 21 (withdrawn): The method of claim 20, wherein the peptide is circular.

1 22 (currently amended): ~~A method for identifying a compound that modulates T~~
2 ~~lymphocyte activation, t~~ The method of claim 1, further comprising the steps of:

3 (i) contacting the compound with a T cell comprising a recombinant TRAC1
4 polypeptide, wherein the polypeptide comprises an amino acid sequence having at least about

5 90% identity to the amino acid sequence of SEQ ID NO:1, wherein the TRAC1 polypeptide has
6 ubiquitin ligase activity; and or fragment thereof with the compound, the TRAC1 polypeptide or
7 fragment thereof encoded by a nucleic acid that hybridizes under stringent conditions to an
8 antisense nucleic acid corresponding to a nucleic acid encoding a polypeptide having an amino
9 acid sequence of SEQ ID NO:1; and

10 ~~(ii) determining the chemical or phenotypic effect of the compound upon the cell~~
11 ~~comprising the TRAC1 polypeptide or fragment thereof, thereby identifying a compound that~~
12 ~~modulates T lymphocyte activation.~~

13 (ii) determining the functional effect of the compound upon TRAC1 polypeptide
14 activity.

1 23 (withdrawn): A method for identifying a compound that modulates T
2 lymphocyte activation, the method comprising the steps of:

3 (i) contacting the compound with a TRAC1 polypeptide or a fragment thereof, the
4 TRAC1 polypeptide or fragment thereof encoded by a nucleic acid that hybridizes under
5 stringent conditions to an antisense nucleic acid corresponding to a nucleic acid encoding a
6 polypeptide having an amino acid sequence of SEQ ID NO:1;

7 (ii) determining the physical effect of the compound upon the TRAC1
8 polypeptide; and

9 (iii) determining the chemical or phenotypic effect of the compound upon a cell
10 comprising the TRAC1 polypeptide or fragment thereof, thereby identifying a compound that
11 modulates T lymphocyte activation.

1 24 (withdrawn): A method for identifying a compound capable of interfering
2 with binding of an TRAC1 polypeptide or fragment thereof, the method comprising the steps of:

3 (i) combining an TRAC1 polypeptide or fragment thereof with an E2 ubiquitin-
4 conjugating enzyme polypeptide and the compound, wherein the TRAC1 polypeptide or

5 fragment thereof is encoded by a nucleic acid that hybridizes under stringent conditions to a
6 nucleic acid encoding a polypeptide having an amino acid sequence of SEQ ID NO:1; and

7 (ii) determining the binding of the TRAC1 polypeptide or fragment thereof to the
8 E2 ubiquitin-conjugating enzyme polypeptide.

1 25 (withdrawn): The method of claim 24, wherein the TRAC1 polypeptide or
2 fragment thereof has ligase activity.

1 26 (withdrawn): The method of claim 24, wherein the E2 ubiquitin-conjugating
2 enzyme polypeptide is selected from the group consisting of Ubc5, Ubc7, and Ubc8.

1 27 (withdrawn): The method of claim 24, wherein the TRAC1 polypeptide or
2 fragment thereof and the E2 ubiquitin-conjugating enzyme polypeptide are combined first.

1 28 (withdrawn): The method of claim 24, wherein the reaction is performed in
2 vitro.

1 29 (withdrawn): The method of claim 24, wherein the TRAC1 polypeptide or
2 fragment thereof and the E2 ubiquitin-conjugating enzyme polypeptide are expressed in a cell.

1 30 (withdrawn): The method of claim 29, wherein the cell is a yeast cell.

1 31 (withdrawn): The method of claim 30, wherein the TRAC1 polypeptide or
2 fragment thereof is fused to a heterologous polypeptide.

1 32 (withdrawn): The method of claim 24, wherein the binding of the TRAC1
2 polypeptide or fragment thereof to the E2 ubiquitin-conjugating enzyme polypeptide is
3 determined by measuring reporter gene expression.

1 33 (withdrawn): An isolated complex comprising a TRAC1 polypeptide or
2 fragment thereof bound to an E2 ubiquitin-conjugating enzyme polypeptide, wherein the TRAC1
3 polypeptide or fragment thereof is encoded by a nucleic acid that hybridizes under stringent

4 conditions to a nucleic acid encoding a polypeptide having an amino acid sequence of SEQ ID
5 NO:1.

1 34 (withdrawn): The complex of claim 33, wherein the E2 ubiquitin-conjugating
2 enzyme polypeptide is selected from the group consisting of Ubc5, Ubc7, and Ubc8.

1 35 (withdrawn): A method of modulating T lymphocyte activation in a subject,
2 the method comprising the step of administering to the subject a therapeutically effective amount
3 of a compound identified using the method of claim 1.

1 36 (withdrawn): The method of claim 35, wherein the subject is a human.

1 37 (withdrawn): The method of claim 35, wherein the compound is an antibody.

1 38 (withdrawn): The method of claim 35, wherein the compound is an antisense
2 molecule.

1 39 (withdrawn): The method of claim 35, wherein the compound is a small
2 organic molecule.

1 40 (withdrawn): The method of claim 35, wherein the compound is a peptide.

1 41 (withdrawn): The method of claim 40, wherein the peptide is circular.

1 42 (withdrawn): The method of claim 35, wherein the compound inhibits T
2 lymphocyte activation.

1 43 (withdrawn): A method of modulating T lymphocyte activation in a subject,
2 the method comprising the step of administering to the subject a therapeutically effective amount
3 of a TRAC1 polypeptide, the polypeptide encoded by a nucleic acid that hybridizes under
4 stringent conditions to a nucleic acid encoding a polypeptide having an amino acid sequence of
5 SEQ ID NO:1.

1 44 (withdrawn): The method of claim 43, wherein the TRAC1 polypeptide
2 comprises an amino acid sequence of SEQ ID NO:1.

1 45 (withdrawn): A method of modulating T lymphocyte activation in a subject,
2 the method comprising the step of administering to the subject a therapeutically effective amount
3 of a nucleic acid encoding a TRAC1 polypeptide, wherein the nucleic acid hybridizes under
4 stringent conditions to a nucleic acid encoding a polypeptide having an amino acid sequence of
5 SEQ ID NO:1.

1 46 (withdrawn): The method of claim 45, wherein the TRAC1 nucleic acid
2 comprises a nucleotide sequence of SEQ ID NO:2.

1 47 (previously presented): The method of claim 1, wherein the TRAC1
2 polypeptide comprises an amino acid sequence having at least about 95% identity to an amino
3 acid sequence of SEQ ID NO:1.

1 48 (new): The method of claim 1, wherein said recombinant TRAC-1
2 polypeptide is isolated.

1 49 (new): The method of claim 1, wherein the functional effect is determined
2 using a ubiquitin ligase assay.

1 50 (new): The method of claim 22, wherein the functional effect is determined
2 by measuring CD69 expression, intracellular Ca²⁺ mobilization, Ca²⁺ influx, ligase activity, or
3 lymphocyte proliferation.